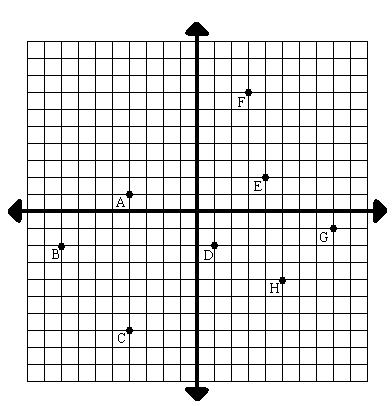
**Algebra 1 Final Exam Review** **Semester 2**

1) What is the ordered pair for the point B on the graph?



A (-8, 2) B (-8, -2)

C (2, 8) D (2, -8)

2) What is the solution of the equation  if the domain is {-1, 0, 2}?

A  B 

C  D 

3) When  is written in slope-intercept form, which equation results?

A  B 

C  D 

4) What is the slope of the line passing through (4, 6) and (7, -3)?

A 3 B 1

C -3 D 

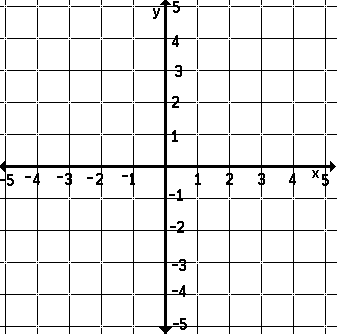
5. What is the x-intercept of the line with the equation 4x +5y = 15?

A 5/4 B 4

C 15/4 D 3

6. Which line is the graph of the equation y = 2x – 4?

**p q r s**



A. p B. q

C. r D. s

7. If line *m* has a slope of -3/4, then what is the slope of a line perpendicular to *m*?

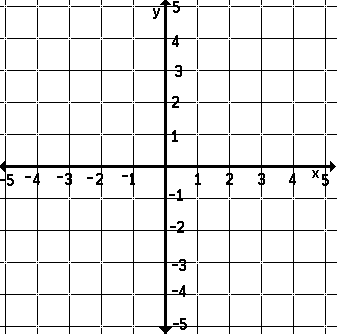
A. -3/4 B. 4/3

C. ¾ D. -4/3

1. Which is the slope of the graphed line?

A 2/3 B 2

C -3 D -2/3



9. Find the equation of the line through (4,-3) with a slope of .

A y = 2x – 3 B y = -3x + 2

C y = ¾ x – 6 D y = ¾ x - 3

10. Find an equation of the line through (2,3) and (8,11)

A -4x + 3y = 1 B 4x – 3y = -1

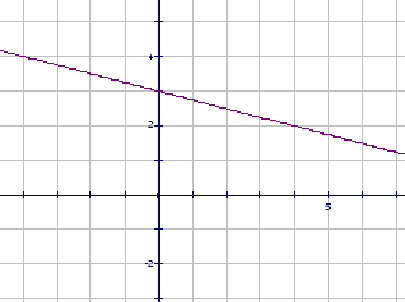
C 4x – 3y = 1 D 4x + 3y = 1

11. What are the coordinates of the midpoint of the line segment with endpoints (-6,2) and (7,10)?

A (8,13) B (, 4)

C (½, 6) D (-2, )

12. Write the equation of the line from the graph in slope-intercept form.



A. y = ¼ x + 3 B. y = ¼ x – 3

C. y = -1/4x + 3 D. y = -2x + 3

1. What is the equation in slope intercept form of the line whose graph has a slope of -3 and a y- intercept of 7?

A. y = -3x + 7 B 3x + y = 7

C. y = 7x – 3 D. y = -7x + 3

1. The lines 3x + 2y = -7 and 3y = 2x + 1 are:



A parallel B perpendicular

C the same line D none of the above

15. Find an equation of the line parallel to y = -3x + 8 and passing through (-1, -4).

A x + 3y = -7 B x – 3y = 7

C 3x + y = -7 D 3x – y = 7

17. Which pair of lines is the graph of the system of equations: 



A *a* and *b*

B *b* and c

C *c* and *d*

D *d* and *a*

18. The number of solutions of the system of equations represented by lines *a* and *b* is:

A exactly on B none

C exactly two D infinitely many

19. Solve by substitution: 

A (2,0) B (0,2) C (-2,0) D (0,-2)

20. If the system  is solved by elimination, what is the value of x?

A 3 B -3 C 1 D -1

21. Which graph represents the two inequalities?

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22. Which inequality is graphed?



A  B  C  D 

23. Kendra owns a restaurant. She charges $1.50 for 2 eggs and one piece of toast, and $.90 for one egg and one piece of toast. Write and graph a system of equations to determine how much she charges for each egg and each piece of toast. Let *x* represent the number of eggs and *y* the number of pieces of toast.

A  

B  

C  

D  

24. An ice skating arena charges an admission fee for each child plus a rental fee for each pair of ice skates. John paid the admission fees for his six nephews and rented five pairs of ice skates. He was charged $32.00. Juanita paid the admission fees for her seven grandchildren and rented five pairs of ice skates. She was charged $35.25. What is the admission fee? What is the rental fee for a pair of skates?

A admission fee: $3.25

skate rental fee: $2.50

B admission fee: $3.00

skate rental fee: $2.00

C admission fee: $3.50

skate rental fee: $3.00

D admission fee: $4.00

skate rental fee: $3.50

25. What is the simplest form of 

A  B 

C  D 

1. What is the simplest form of 

A  B 

C  D 

1. What is the simplest form of ? Assume the denominator is not equal to zero.

A  B 

C  D 

1. Simplify 

A  B 

C  D 

29. What is the simplest form of ?

A  B 

C  D 

30. What is the degree of ?

A 4 B 3

C 6 D 5

31. What is the simplest form of ?

A  B 

C  D 

32. What is the simplest form of ?

A  B 

C  D 

33. What is the simplest form of 

A  B 

C  D 

34. What is the simplest form of 

A  B 

C  D 

35. What is the simplest form of 

A  B 

C  D 

36. Simplify: 

A 

B 

C 

D 

37. Use long division to find the quotient 

A  B 

C  D 

38. Find the GCF of  and 

A  B 

C  D 

39. Factor completely 

A  B 

C  D Prime

40. If is factored completely, one of the factors is:

A  B 

C  D 

1. Factor 2x- 13x + 15

A (x + 3)(2x – 5) B (x – 3)(2x+ 5)

C (x + 5)(2x + 3) D (x – 5)(2x – 3)

1. If 8x– 10x + 3 is factored completely, one of the factors is:

A (4x – 1) B (8x + 3)

C (4x – 3) D (2x + 1)

1. What is the solution set of the equation

(2x – 5)(3x + 4) = 0

A  B 

C  D 

1. Factor 6a(a + 2) – 5(a + 2)

A (a + 2)(6a – 5) B (6a + 5)(a + 2)

C (6a – 5)(a + 2)(a + 2) D none of these

45. If x3 - 3x2 + x - 3  is factored completely, one of the factors is

A x - 2 B x + 3

C x – 3 D x - 1

46. Which of the following is a perfect square trinomial ?

A x2 + 5x + 4 C x2 + 8x + 15

B x2 - 6x + 9  D x2 - 3x – 10

47. What is the solution set of the equation:

x2 + 8x = -15 ?

A {3, 5} C {3, -5}

B {-3, 5} D {-3, -5}

48. Simplify √40

A 4√10 C 4√5

B 2√10 D 4√5

49. Simplify

A  C 

B  D

50. Simplify

A  C

B  D